



January 3, 2000
Project No. 97664V3

PROVIDING

- Geotechnical Engineering
- Construction Materials Testing
- Environmental Site Assessments
- Drilling Services

Ms. Brenda Pohlmann
Nevada Division of Environmental Protection
555 E. Washington, Suite 4300
Las Vegas, NV 89101-1049

RE: Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road bridge.

Dear Ms. Pohlmann:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas wash on December 27, 1999 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 560 micrograms per Liter ($\mu\text{g/L}$). The NEL report is included with this letter, along with a 1999 Perchlorate Summary Table.

An addition to the sample we collected and submitted to NEL, a split sample was collected per the request of Mr. Kevin Mayer, with the US Environmental Protection Agency (USEPA). This split sample was collected at the same time and in the same manner as the sample submitted to NEL, and was sent, under chain-of-custody protocol, to the USEPA Laboratory in Richmond, California.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included or intended in this report. We appreciate this opportunity to provide our

services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.



Daniel C. Burns, C.E.M. *
(Expires 10/07/2001)
Project Manager



Gregory P. DeSart, P.E., C.E.M.
C.E.M. (Expires 12/22/2000)
President

* "I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

jlk

Enc: 1999 Perchlorate Summary Table
NEL Analytical Report

Dist: faxed to addressee at 486-2863
1 original mailed to addressee
cc: fax to Jeff Gibson, American Pacific Corporation
cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105
cc: to project file 97664V3

**Las Vegas Wash at Northshore Road Bridge
1999 Summary of Perchlorate Concentrations**

Date Sampled	Perchlorate (µg/L)
1/15/99	580
1/29/99	670
2/12/99	600
2/25/99	680
3/26/99	670
4/30/99	180
5/27/99	950
6/25/99	700
7/22/99	710
8/26/99	710
9/26/99	820
10/29/99	760
11/29/99	520
12/27/99	560

NEL LABORATORIES

Reno • Las Vegas
Phoenix • So. California

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, NV 89030
(702) 657-1010 • Fax: (702) 657-1577
1-888-388-3282

CLIENT: Geotechnical & Env. Serv.
7560 West Sahara Ave. #101
Las Vegas, NV 89117
ATTN: Dan Burns

PROJECT NAME: FPF/97664 V3
PROJECT NUMBER: 97664 V3

NEL ORDER ID: L9912298

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 12/27/99.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.


Stan Van Wagenen
Laboratory Manager

12/30/99
Date

CERTIFICATIONS:

	Reno	Las Vegas	S. California
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	Reno	Las Vegas	S. California
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

NEL LABORATORIES

CLIENT: Geotechnical & Env. Serv.
PROJECT ID: FPF/97664 V3
PROJECT #: 97664 V3

CLIENT ID: North Shore Bridge-12/27/99
DATE SAMPLED: 12/27/99
NEL SAMPLE ID: L9912298-01

TEST: Inorganic Non-Metals
MATRIX: Aqueous

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>D. F.</u>	<u>METHOD</u>	<u>UNITS</u>	<u>ANALYZED</u>
Perchlorate	560	40.	10	CA DHSM - IC	µg/L	12/28/99

D F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Geotechnical & Env. Serv.
PROJECT ID: FPF/97664 V3
PROJECT #: 97664 V3
TEST: Non-Metals

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 122899-CLO4-BLK

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>D. F.</u>	<u>METHOD</u>	<u>UNITS</u>	<u>ANALYZED</u>
Perchlorate	ND	4	1	CA DHSM - IC	µg/L	12/28/99

D.F. - Dilution Factor

ND - Not Detected

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